c) Amendments to Claims

Please cancel original claims 113 and 115 without prejudice or disclaimer of subject matter presented herein. Kindly amend claims 83, 88 and 121. A detailed listing of all the claims that are or were on the application is provided.

Claims 1 - 82 (Cancelled)

83. (Currently Amended) A process-cartridge detachably mountable to a main assembly of an image forming apparatus for developing an electrostatic latent image formed on an image-bearing member with a developer to form a toner image, transferring the toner image onto a transfer-receiving material, and fixing the toner image on the transfer material, wherein the process-cartridge includes:

an image-bearing member for bearing an electrostatic latent image thereon,

a charging means for charging the image-bearing member, and

a developing means for developing the electrostatic latent image on the image-bearing member to form a toner image;

the charging means includes a charging member disposed to contact the image-bearing member and supplied with a voltage to charge the image-bearing member at a contact position where at least the electroconductive fine powder of the developer is co-present as a portion of the developer attached to and allowed to remain on the image-bearing member after transfer of the toner image by the transfer means; and

the developer includes toner particles each comprising a binder resin and a colorant, inorganic fine powder having a number-average particle size of 4 - 80 nm based on primary particles, and electroconductive fine powder; wherein the developer has a number-basis particle size distribution in the range of 0.60 - 159.21 μm including 15 - 60 % by number of particles in the range of 1.00 - 2.00 μm, and 15 - 70 % by number of particles in the range of 3.00 - 8.96 μm, each particle size range including its lower limit and excluding its upper limit, and the electroconductive fine powder (i) is non-magnetic, (ii) has a resistivity of at most 10^9 ohm.cm, (iii) is present in amounts from 1 to 10 wt. % of the developer and (iv) contains 5 - 300 particles having a particle size in the range from 0.6 - 3 μm per 100 toner particles; the image-bearing member has a volume resistivity of 1 x 10^9 - 1 x 10^{14}ohm.cm at its surfacemost layer; and the image-bearing member has a surface exhibiting a contact angle with water of at least 85 degrees.

84. (Original) The process-cartridge according to claim 83, wherein the developing means includes at least a developer-carrying member disposed opposite to the image-bearing member, and a developer layer-regulating member for forming a thin developer layer on the developer-carrying member, so that the developer is transferred from the developer layer on the developer-carrying member onto the image-bearing member to form the toner image.

85. (Original) The process-cartridge according to claim 83, wherein the developer contains 20 - 50 % by number of particles in the range of 1.00 - 2.00 μm.

AK

86. (Original) The process-cartridge according to claim 83, wherein the developer contains 0 - 20 % by number of particles in the range of at least 8.96 μm.

87. (Original) The process -cartridge according to claim 83, wherein the developer contains A % by number of particles in the range of 1.00 - 2.00 μm and B % by number of particles in the range of 2.00 - 3.00 μm, satisfying a relationship of $A > 2B$.

88. (Currently Amended) The process-cartridge according to claim 83, wherein the developer has a variation coefficient of number-basis distribution Kn as defined below of 5 - 40 in the particle size range of 3.00 - 15.04 μm:

$$Kn = (Sn/D1) \times 100, [[\backslash]]$$

wherein Sn presents a standard deviation of number basis distribution and D1 represents a number-average circle-equivalent diameter (μm), respectively, in the range of 3.00 - 15.04 μm.

89. (Cancelled)

90. (Previously Presented) The process-cartridge according to claim 144, wherein the developer contains 93 - 100 % by number of particles having a circularity a of at least 0.90.

91. (Original) The process-cartridge according to claim 83, wherein the developer has a standard deviation of circularity distribution SD of at most 0.045 as determined according to the following formula:

$$SD = [\Sigma(a_i - a_m)^2/n]^{1/2},$$

wherein a_i represents a circularity of each particle, a_m represents an average circularity and n represents a number of total particles, respectively, in the particle size range of 3.00 - 15.04 µm.

92-94. (Cancelled)

95. (Original) The process-cartridge according to claim 83, wherein the electroconductive fine powder has a resistivity of at most 10^6 ohm.cm.

96. (Cancelled)

97. (Original) The process-cartridge according to claim 83, wherein the electroconductive fine powder comprises at least one species of oxide selected from the group consisting of zinc oxide, tin oxide and titanium oxide.

98. (Original) The process-cartridge according to claim 83, wherein the developer contains 0.1 - 3.0 wt. % thereof of the inorganic fine powder.

99. (Original) The process-cartridge according to claim 83, wherein the inorganic fine powder has been treated with at least silicone oil.

100. (Original) The process cartridge according to claim 83, wherein the inorganic fine powder has been treated with a silane compound simultaneously with or followed by treatment with silicone oil.

101. (Original) The process-cartridge according to claim 83, wherein the inorganic fine powder comprises at least one species of inorganic oxides selected from the group consisting of silica, titania and alumina.

102. (Original) The process-cartridge according to claim 83, wherein the developer is a magnetic developer having a magnetization of 10 - 40 Am^2/kg at a magnetic field of 79.6 kA/m.

103. (Original) The process-cartridge according to claim 83, wherein

the electroconductive fine powder is non-magnetic and has a resistivity of at most 10^9 ohm.cm,

the electroconductive fine powder is contained in 1 - 10 wt. % of the developer,

the electroconductive fine powder contains 5 - 300 particles having a particle size in the range of 0.6 - 3 μm per 100 toner particles.

the inorganic fine powder is hydrophobic inorganic fine powder selected from the group consisting of silica treated with silicone oil, silica treated with a silane compound, titania treated with silicone oil, titania treated with a silane compound, alumina treated with silicone oil, and alumina treated with a silane compound, and

the inorganic fine powder is contained in 0.1 - 30 wt. % of the developer.

104. (Previously Presented) The process-cartridge according to claim 83 wherein the developer has a volume-average particle size of 4- 10 μm, and the electroconductive fine powder has a resistivity of 10^0 to 10^5 ohm.cm.

105. - 108. (Cancelled)

109. (Previously Presented) The process-cartridge according to claim 83, the charging member is a roller charging member having at least a surface layer of a foam material.

110. (Previously Presented) The process-cartridge according to claim 83, wherein the charging member is a roller charging member having an Asker C hardness of 25 - 50 supplied with a voltage.

111. (Previously Presented) The process-cartridge according to claim 83, wherein the charging member is a roller charging member having a volume resistivity of 10^3 - 10^8 ohm.cm.

112. (Previously Presented) The process-cartridge according to claim 83, wherein the charging member is a brush member having electroconductivity and supplied with a voltage.

113. (Cancelled)

114. (Original) The process-cartridge according to claim 83, wherein the image-bearing member has a surfacemost layer comprising a resin with metal oxide conductor particles dispersed therein.

115. (Cancelled)

116. (Original) The process-cartridge according to claim 83, wherein the image-bearing member has a surfacemost layer containing fine particles of a lubricant selected from fluorine-containing resin, silicone resin and polyolefin resin.

117. (Previously Presented) The process-cartridge according to claim 83, wherein a developer-carrying member carrying the developer is disposed opposite to and with a spacing of 100 - 1000 μm from the image-bearing member.

118. (Previously Presented) The process-cartridge according to claim 83, wherein in the developing step, the developer is carried in a density of 5 - 30 g/m^2 on a developer-carrying member to form a developer layer, from which the developer can be transferred to the image-bearing member to form the toner image.

119. (Previously Presented) The process-cartridge according to claim 83, wherein in the developing step, the developer-carrying member is disposed with a prescribed spacing from the image-bearing member, the developer layer is formed in a thickness smaller than the spacing, and the transfer means is an electrostatic transfer means.

120. (Previously Presented) The process-cartridge according to claim 83, wherein the developing step, provides a developing bias voltage to form an AC electric field having a peak-to-peak field strength of 3×10^6 - 10×10^6 volts/m and a frequency of 100 - 5000 Hz between the developer-carrying member and the image-bearing member.

121. (Currently Amended) The process-cartridge detachably mountable to a main assembly of an image forming apparatus for developing an electrostatic latent

image formed on an image-bearing member with a developer to form a toner image and transferring the toner image onto a transfer(-receiving) material, wherein the process-cartridge includes:

an image-bearing member for bearing an electrostatic latent image thereon,

a charging means for charging the image-bearing member, and

a developing means for developing the electrostatic latent image on the image-bearing member to form a toner image;

said developing means is a means for developing the electrostatic latent to form the toner image and also a means for recovering the developer remaining on the image-bearing member after the toner image is transferred onto the transfer material; and

said developer includes toner particles each comprising a binder resin and a colorant, inorganic fine powder having a number-average particle size of 4 - 80 nm based on primary particles, and electroconductive fine powder; wherein the developer has a number-basis particle size distribution in the range of 0.60 - 159.21 μm including 15 - 60 % by number of particles in the range of 1.00 - 2.00 μm, and 15 - 70 % by number of particles in the range of 3.00 - 8.96 μm, each particle size range including its lower limit, and excluding its upper limit, the electroconductive fine powder (I) is non-magnetic, (ii) has a resistivity of at most 10^9 ohm.cm, (iii) is present in amounts from 1 to 10 wt. % of the developer and (iv) contains 5 - 300 particles having a particle size in the range from 0.6 - 3 μm per 100 toner particles ; the image-bearing member has a volume resistivity of 1 x 10^9 -

1×10^{14}ohm.cm at its surfacemost layer; and the image-bearing member has a surface exhibiting a contact angle with water of at least 85 degrees.

122. (Previously Presented) The process-cartridge according to claim 121, wherein the developing means includes at least a developer-carrying member disposed opposite to the image-bearing member, and a developer layer-regulating member for forming a thin developer layer on the developer-carrying member, so that the developer is transferred from the developer layer on the developer-carrying member onto the image-bearing member to form the toner image.

123. (Original) The process-cartridge according to claim 121, wherein the developer contains 20 - 50 % by number of particles in the range of 1.00 - 2.00 μm.

124. (Original) The process-cartridge according to claim 121, wherein the developer contains 0 - 20 % by number of particles in the range of at least 8.96 μm.

125. (Original) The process-cartridge according to claim 121, wherein the developer contains A % by number of particles in the range of 1.00 - 2.00 μm and B % by number of particles in the range of 2.00 - 3.00 μm, satisfying a relationship of $A > 2B$.

126. (Previously Presented) The process-cartridge according to claim 121, wherein the developer has a variation coeeficient of number-basis distribution Kn as defined below of 5 - 40 in the particle size range of 3.00 - 15.04 μm:

$$Kn = (Sn/D1) \times 100,$$

wherein Sn represents a standard deviation of number basis distribution and D1 represents a number-average circle-equivalent diameter (μm), respectively, in the range of 3.00 - 15.04 μm.

127. (Cancelled)

128. (Previously Presented) The process-cartridge according to claim 145, wherein the developer contains 93 - 100 % by number of particles having a circularity a of at least 0.90.

129. (Original) The process-cartridge according to claim 121, wherein the developer has a standard deviation of circularity distribution SD of at most 0.045 as determined according to the following formula:

$$SD = [\Sigma(a_i - a_m)^2/n]^{1/2},$$

wherein a represents a circularity of each particle, a_m represents an average circularity and n represents a number of total particles, respectively, in the particle size range of 3.00 - 15.04 μm.

130-132. (Cancelled)

133. (Original) The process-cartridge according to claim 121, wherein the electroconductive fine powder has a resistivity of at most 10^6 ohm.cm.

134. (Cancelled)

135. (Original) The process-cartridge according to claim 121, wherein the electroconductive fine powder comprises at least one species of oxide selected from the group consisting of zinc oxide, tin oxide and titanium oxide.

136. (Original) The process-cartridge according to claim 121, wherein the developer contains 0.1 - 3.0 wt. % thereof of the inorganic fine powder.

137. (Original) The process-cartridge according to claim 121, wherein the inorganic fine powder has been treated with at least silicone oil.

138. (Original) The process-cartridge according to claim 121, wherein the inorganic fine powder has been treated with a silane compound simultaneously with or followed by treatment with silicone oil.

139. (Original) The process-cartridge according to claim 121, wherein the inorganic fine powder comprises at least one species of inorganic oxides selected from the group consisting of silica, titania and alumina.

140. (Original) The process-cartridge according to claim 121, wherein the developer is a magnetic developer having a magnetization of 10 - 40 Am^2/kg at a magnetic field of 79.6 kA/m.

141. (Original) The process-cartridge according to claim 121, wherein

the electroconductive fine powder is non-magnetic and has a resistivity of at most 10^9 ohm.cm,

the electroconductive fine powder is contained in 1 - 10 wt. % of the developer,

the electroconductive fine powder contains 5 - 300 particles having a particle size in the range of 0.6 - 3 μm per 100 toner particles.

the inorganic fine powder is hydrophobic inorganic fine powder selected from the group consisting of silica treated with silicone oil, silica treated with a silane compound, titania treated with silicone oil, titania treated with a silane compound, alumina treated with silicone oil, and alumina treated with a silane compound, and

the inorganic fine powder is contained in 0.1 - 30 wt. % of the developer.

142. (Original) The process-cartridge according to claim 141, wherein the developer has a volume-average particle size of 4 - 10 μm, and the electroconductive fine powder has a resistivity of 10^0 to 10^5 ohm.cm.

143. (Original) The process cartridge according to claim 121, wherein said charging means is a contact charging means including a charging member contacting said image-bearing member to the image-bearing member.

144. (Previously Presented) The process-cartridge according to claim 83, wherein the developer contains 90 - 100% by number of particles having a circularity a of at least 0.90 as determined by the following formula in the particle size range of 3.00 - 15.04 μm:

$$\text{Circularity } \underline{a} = L_0/L,$$

wherein L denotes a circumferential length of a particle projection image, and L_0 denotes a circumferential length of a circle having an area identical to that of the particle projection image.

145. (Previously Presented) The process-cartridge according to claim 121, wherein the developer contains 90 - 100% by number of particles having a circularity a of at least 0.90 as determined by the following formula in the particle size range of 3.00 - 15.04 μm:

$$\text{Circularity } \underline{a} = L_0/L,$$

wherein L denotes a circumferential length of a particle projection image, and L_0 denotes a circumferential length of a circle having an area identical to that of the particle projection image.--